

**ABSTRACT**

A method and system for generating sound using a speaker having a transducer is disclosed. In a first aspect, the method and system comprise conditioning an input signal; and analyzing the conditioned signal in accordance with at least one transducer model. The method and system further includes providing a drive signal based upon the analysis and modulating a drive signal provided to the transducer. In a second aspect, a method and system for determining the positional BL factor of a transducer during sound transduction is disclosed. The method and system comprises continually at short time intervals measuring the change of the current to the transducer; measuring the back EMF of the transducer; and calculating the present positional BL factor from the change in EMF versus change in current. The new positional BL factor is then utilized directly in the transducer model.

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